Aerodynamics of Steam and Gas Turbine Flow-Passage Areas SOV/1308

8. Investigation of the three-dimensional flow of gas in a turbine stage with blades profiled according to the law expressed by $C_u r^2 \cos^2\alpha$ = const. 101

9. Work of turbine stages in the region of saturated steam and problems of investigation 119

Ch. III. Stage With Partial Admission of the Working Medium 131

10. Experimental investigation of physical processes in the flow behind the partial nozzle apparatus 131

11. Some results of tests of partial stage models 143

12. Choice of optimum combination of active nozzle curves in groups of partial stages 159

Ch. IV. Exhaust Losses

13. Reducing exhaust losses in pressure and gas turbines 165

14. Effect of the nonuniformity of the inlet profile of velocity on the work of the turbine stage 165

15. Use of exhaust kinetic energy in the intermediate stages of a multistage turbine 173

181

Card 5/6

Aerodynamics of Steam and Gas Turbine Flow-Passage Areas SOV/1308

Ch. V. Low-power Turbines 194
16. Radial centripetal turbine with internal partial supply of steam 194
17. Experimental investigation of a centripetal turbine with internal partial steam supply 203

Ch. VI. Laboratory Equipment 223
18. Experimental pressure turbines 223
19. Experience working with an aerodynamic angle-gage 238
20. Experience manufacturing silicon-aluminum blades 240

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IS/ksv
3-17-59

Card 6/6

KUSMICKI, Ryszard

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Wiadomosci parazyt., 7 no.4/5:9450951 '61.

1. I Klinika Chorob Wewnetrznych A.M. Lodz.
(HELMINTHIASIS prev & control)

KUSMIDER, Mieczyslaw, mgr inz.; CISZKOWSKI, Boguslaw, mgr inz.

Locomotive centers for diesel engine traction on the U.S.S.R. railroads. Przegl kolej mechan 13 no.11:341-345 N '61.

SPETTOWA, Stanislawa; SIKORSKA, Barbara; KUSMIDERSKI, Jozef

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Angiography in sub- and epidural hematomas. Ibid.:463-475

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[illegible], Jozef

[illegible]

[illegible]

SPETTOWA, Stanislawa; JEDLINSKA, Maria; KUSMIDERSKI, Jozef

Differentiation of cerebral tumors with the aid of angiography. Neurol., neurochir., psychiat. Pol. 14 no.3: 463-467 My-Je '64

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[illegible]

[illegible]

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KUSMIERCZYK, J.; WYRZYKOWSKI, T.

KUSMIERCZYK, J.; WYRZYKOWSKI, T., Twenty-second Hungarian theodolite (MOM). p. 252.

Vol. 11, no. 7, July 1955, Warszawa, Poland SCIENCE

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, No.2 Feb., 1956

MOS[illegible]

[illegible] β

acids [illegible] Krakow [illegible]

1. Department of Organic Chemistry of [illegible] University, Krakow. Submitted [illegible]

MOSZEW, J.; KUSMIERCZYK, St.

Transformation of the anilides of aliphatic β-keto acids. Pt.2. Bul chim PAN 9[i.e. 12] no.9:587-591 '64.

1. Department of Organic Chemistry of Jagiellonian University, Krakow, and Laboratory No.6, of the Institute of Organic Synthesis of the Polish Academy of Sciences, Krakow. Submitted April 8, 1964.

MOSZEW, J.; KUSMIERCZYK, St.

The transformations of anilides of the aliphatic β- keto acids. Bul chim PAN 9 no.5:307-308 '61.

1. Katedra Chemii Organicznej, Uniwersytet Jagiellonski, Krakow. Pracownia Nr. 6. Zaklad Syntezy Organicznej, PAN. Presented by T. Urbanski.

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Neurol. neurochir. psychiat. Pol. 14 no. 2:219-223 Mr-Ap '64.

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prof. dr A.Kunicki) i z Zakladu Neuroradiologii (Kierownik:
prof. dr S.Spettowa).

KUSMIEREK, Z.

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"Technological regimens in the clothing industry", p. 3 (Odziez, Vol. 4, No. 1, Jan. 1953, Lodz)

SO: Monthly List of East European Accessions, Vol. 3, No. 3 /Library of Congress, March 1954, Uncl.

[illegible]

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"Some remarks on serious problems." p. 112. (ODZIEZ, Vol. 4, no. 5, May 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

KUSMIEREK, Z.

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(OZIEZ, Vol. 4, no. 6, June 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

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no.48:2117-2119 30 Nov 59.

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dr Jozef Gasinski).
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SKOCZYNSKI, Jan; KOSSMANN, Stefan; KUSMIERSKI, Stanislaw

A case of bronchial rupture after blunt injury of the thorax.
Polski tygod.lek. 15 no.51:1977-1979 19 D '60.

1. Z II Kliniki Chorob Wewnetrznych; kierownik: prof. dr W.Zahorski
i z II Kliniki Chirurgicznej Sl. A.M. w Zabrzu; kierownik: prof.dr
J.Gasinski.
(BRONCHI wds & inj)

KOSMIDER, Stanislaw; KUSMIERSKI, Stanislaw

Behavior of pH of the venous blood in the extremities with occlusive vascular changes. Polskie arch. med. wewn. 31 no.5:657-652 '61.

1. Z II Kliniki Chorob Wewnetrznych Sl. AM Kierownik: prof. dr med. W. Zahorski Z II Kliniki Chirurgicznej Sl. AM Kierownik: prof. dr med. J. Gasinski.

(VASCULAR DISEASES PERIPHERAL blood)
(HYDROGEN ION CONCENTRATION blood)

KUSMIERSKI, Stanislaw

Diagnostic difficulties in Recklinghausen's disease. Polski przegl. chir. 35 no.9:967-968 '63.

1. Z II Kliniki Chirurgicznej Sl AM w Zabrzu. Kierownik: prof. dr. J.Gasinski.

KUSMIERSKI, Stanislaw

Relationship between the ABO blood group system and microscopic thyroid changes. Pol. przegl. chir. 35 no.10/11:1020-1021 '63.

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(ABO FACTORS) (THYROID DISEASES)
(THYROID NEOPLASMS) (STATISTICS)

[illegible]

[illegible] results in injuries of the urethra in pelvic fractures and their relation to the [illegible] [illegible] [illegible] [illegible] 36 no. [illegible] [illegible]

1. [illegible]
[illegible]

KUSMIERSKI, Stanislaw

Vascular complications following appendectomy. Wiad. lek. 18 no.3:253-254 F 1'65

1. Z II. Kliniki Chirurgicznej Slaskiej Akademii Medycznej w Katowicach (Kierownik: prof. dr. J. Gasinski).

CYGAN, Z.; KUSMIERSKI, S.; DROZDZ, M.; ZEGLEN, S.; ZAK, T.

Assesment of the clinical usefulness of the determination of serum mucoproteins in surgical diseases. Wiad. lek. 18 no.20: 1603-1608 15 0 '65.

1. Z Zakladu Chemii Fizjologicznej (Kierownik: prof. dr. S. Jozkiewicz) i z II Kliniki Chir. Slaskiej AM w Zabrzu (Kierownik: prof. dr. J. Gasinski).

KUCH[illegible], Stanislaw; TOBIK, Stanislaw

Prolapsed intervertebral disc and ischemia of lower limbs.
Pol. tyg. lek. 20 no.21:767-769 24 My '65.

1. Z II Kliniki Chirurgicznej Slaskiej AM w Katowicach
(Kierownik: prof. dr. Jozef Gasinski).

KUSMIERSKI, Stefan, mgr.

Economizing steel and nonferrous metals in machine construction. Przegl techn 85 no.45:3 8 N '64

L 11772-66 EWT(1)/EWT(m)/FCC/T/EWA(h) IJP(c) GW

ACC NR: AT6003527 SOURCE CODE: UR/3184/65/000/007/0135/0139

AUTHOR: Chirkov, N.P.; Krymskiy, G.F.; Kuz'min, A.I.; Skripin, G. V.

37

ORG: none

TITLE: Variations of cosmic rays and oscillations of the magnetosphere

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. Kosmicheskiye luchi, no. 7, 1965, 135-139

TOPIC TAGS: galactic cosmic ray, magnetic storm, geomagnetic threshold, Forbush decrease, lunar diurnal variation, energy spectrum

ABSTRACT: Some difficulties occur in investigating geomagnetic changes in galactic cosmic rays. The intensity of cosmic rays is subject to great fluctuations of sudden commencement during strong magnetic storms. The spectrum of galactic particles is only slightly sensitive to changes of geomagnetic thresholds compared to solar particles, and the spectrum becomes harder during the Forbush decrease. These phenomena indicate that the increase of cosmic-ray intensity occurs isotropically and anisotropically, and its maximum amplitude is found at middle latitudes. This period is associated with weak geomagnetic disturbances. Statistical data prove that the change of cosmic-ray intensity during the Forbush decrease occurs with the same probability at both high and low latitudes. This fact contradicts the assumption that the increase depends only upon the magnetic thresholds. The problem of the

Card 1/2

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ACC NR: AT6003527

lunar diurnal variations is also unresolved because these variations do not have a tidal origin. They indicate a 27-day modulation of solar diurnal variations. The conclusion may be drawn that the magnetosphere plays a small role in variations of galactic cosmic rays, but its influence is significant for solar cosmic rays with soft energy spectrum. Orig. art. has: 5 figures and 1 table. [EG]

SUB CODE: 03/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 007/ ATD PRESS 4178

Card 2/2

КУЗЬМИН, Д. В.

SUBJECT USSR / PHYSICS CARD 1 / 3 PA - 1379
AUTHOR KUSMIN, D.W.
TITLE The Dipole Moments of Dielectric and Semiconductor Particles
PERIODICAL Žurn.techn.fis, 26, fasc. 9, 1880-1883 (1956)
Issued: 10 / 1956 reviewed: 10 / 1956

The well-known formula of the electric moment of a sphere in the homogeneous field is used for the evaluation of the ponderomotoric forces of the electric field. On the basis of the continuity of the total amperage SKANAWI investigated the processes of the distribution of an electric field in the dielectricum of the layer of a conductive flat condenser. A similar method can be applied for the computation of the dipole moments of dielectric and semiconductor particles. It is assumed that a sphere with the radius R is introduced in a homogeneous field between parallel flat electrodes which are under the voltage U. In comparison with the distance d between the electrodes U is not high. The dielectric constants and the conductivities of the medium and the sphere are ε_1, ε_2 and χ_1, χ_2. The sphere is in the middle between the electrodes. It is homogeneously polarized and the moment of the dipole of the sphere is equal to p. The voltage of the exterior field E is equal to the sum of the voltage $E_o = \frac{U}{d}$ and the voltage of the field of the dipole system in flat metal electrodes. The following assumptions are taken into account:
1.) Neglect of the time necessary for adjusting dielectric polarization.
2.) Because of different current densities of conductivity in the medium and

Žurn.techn.fis, 26, fasc.9, 1880-1883 (1956) CARD 2 / 3 PA - 1379

in the sphere a free charge collects on the boundary of separation, which has a field. The amount of the electric moment of the sphere changes and is a function of time p = p(t).

3.) It is assumed that the field between the plates changes according to the law $E_0 = E_{m0}\, e^{i \ t}$ and that the electric moment of the sphere is $p(t) = p_m e^{i \ t}$, where p_m is a complex quantity which depends on time. In order to compute the function p(t) a continuity of the total current through a closed surface is assumed. On the basis of these assumptions the following formulae are obtained after several transformations: for the dependence of the electric moment of the sphere on time in steady state (t = ∞) in the periodic field; for the amplitude value of the electric moment of the sphere in the steady state; the time constant for the process of new distribution of the field and for adjustment of the steady moment which is the same for parallel- and alternating fields. If a sphere with sufficient conductivity is introduced into the insulating layer, one obtains

$$p_{max} = \frac{\varepsilon_1}{\beta_1} R^3 E_0$$

where

$$\beta_1 = 1 - \frac{2R^3}{d^3} \sum_{n=1}^{\infty} \frac{2}{n^3}$$

Žurn.techn.fis, 26, fasc.9, 1880-1883 (1956) CARD 3 / 3 PA - 1379

With $d \gg R$ ($\beta_1 = 1$) the above formula coincides with the well-known formula for the dipole moment.

In the steady state a certain phase shift occurs between the dipole moment of the particle and the voltage of the exterior field, which is equal to zero for dielectric particles and for particles of good conductors. For particles of semiconductors it can, however, attain a considerable amount.

INSTITUTION:

KUS'MIN, G.A, (Kazan')

Effect of the shaft mass of a rotor on its critical speed. Trudy KAI 38:295-300 '58. (MIRA 16:8)

(Rotors)

KUSMIN, L. ...

PA 13T35

USSR/Chemistry - Mercury Oxide
Chemistry - Electrolysis

Sep 1946

"Electrolytic Preparation of Mercury Oxide," L. L. Kusmin, T. F. Kapustina, 10 pp

"Zhur Prik Khim" Vol XIX, No 9

Investigation of the influence of certain factors on anodic mercury oxidation in order to discover a method of obtaining pure mercury oxide.

13T35

2

69840

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S/051/60/008/03/015/038
E201/E191

AUTHORS: Treshchova, Ye.G., Panchenko, Yu.N., Vasil'yev, N.I., Kus'min, M.G., Shabarov, Yu.S., and Levina, R.Ya.

TITLE: Raman Spectra of Hydrocarbons of Various Classes. VI. The Raman Spectra of Some Arylcyclobutanes

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 3, pp 371-375 (USSR)

ABSTRACT: The authors investigated the Raman spectra of phenylcyclobutane and of the following arylcyclobutanes: m-tolylcyclobutane, n-tolylcyclobutane, o-anisylcyclobutane, n-anisylcyclobutane; for the sake of comparison the Raman spectra of phenylcyclopropane and n-tolylcyclopropane were also obtained. The apparatus, the experimental technique and the methods of calculation were the same as in earlier work (Ref 6). The results are given in Tables 2-4, and the properties (such as the melting point, refractive index, etc) of the four arylcyclobutanes and of phenylcyclobutane are listed in Table 1. The Raman spectra of all four arylcyclobutanes included frequencies characteristic of the appropriate mono- and dialkylbenzenes and alkykcyclobutanes. The intensity of the Raman lines characteristic of the

Card 1/2

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S/051/60/008/03/015/038
E201/E191

Raman Spectra of Hydrocarbons of Various Classes. VI. The Raman Spectra of Some Arylcyclobutanes

four-member cycle and of the benzene ring (lines in the region ~1000-1600 cm^{-1}) is greater in the spectra of arylcyclobutanes than the intensities of the corresponding lines in spectra of alkylcyclobutanes and alkylbenzenes. This behaviour of the intensities was not observed in the case of lines at ~600-800 cm^{-1}, which are characteristic of the benzene ring.
There are 4 tables and 7 Soviet references.

Card
2/2

SUBMITTED: July 3, 1959

KRASIL'NIKOV, M.I.; KUS'MIN, M.T. (Orekhovo-Zuyevo)

Health measures in Orekhovo-Zuyevo. Sov. zdrav. 22 no.7:14-18 '63 (MIRA 16:12)

1. Iz Doma sanitarnogo prosveshcheniya, Orekhovo-Zuyevo.

KUS'MIN, P.V.

Sugar Machinery

Decrease expenditures on repairs. Sakh. prom. 26, no. 9, 1952.

9. *Monthly List of Russian Accessions*, Library of Congress, December 1952 ~~1953~~, Uncl.

KUZMIN, Rodion Osievich, jt. ed.

Collection of problems in higher mathematics Pod redaktsiei N.M. Guntera i R. O. Kuz'mina... Leningrad, 19[illegible]. IV

GYUNTER, Nikolay Maksimovich; KUS'MIN, Rodion Osipovich; AMOSOV, S.I., red.; DZHANELIDZE, G.Yu., red.; AKILOV, G.P., red.; VOLCHOK, K.M., tekhn. red.

[Collection of problems in higher mathematics] Sbornik zadach po vysshei matematike. Pod red. S.I. Amosova i G.IU. Dzhanelidze. Izd.13., perer. Moskva, Gos. izd-vo fiziko-matematicheskoi lit-ry. Vol.2. 1958. 286 p. (MIRA 11:9)
(Mathematics--Problems, exercises, etc.)

EXCERPTA MEDICA Sec. 17 Vol. 3/10 Public Health Oct. 57

3073. KUSMIN V. "New conceptions with regard to aetiology and prevention of diseases caused by chilling (Bulgarian text) SAVR. MED. 1956, 7/4 (101-105)

The role of chilling in the aetiology of many diseases is important especially with regard to occupational hygiene. The elements of the meteorological factor or their accidental coexistence are still under discussion. A review of the various opinions is presented. The effect of cold on the human body is often considered to depend on the intensity of the cooling agent, e.g. the air temperature. Others maintain that the principal role in the initiation of disease is played by higher temperatures, dulling the watchfulness of the defence mechanisms of the organism against cold and interfering with thermo-adaptation. Still others hold the view that low temperatures combined with high relative humidity are especially harmful, on account of the great heat-capacity of moisture. Infrared radiation on the contrary is asserted to provoke a 'thermal response' in the tissues, providing protection against chilling. On the other hand exaggerated radiation by the body is considered as an aetiological factor in chills. Recently attention has been drawn to the favourable influence of the 'dynamic microclimate' which promotes thermo-adaptation by training of the thermo-regulatory apparatus.

Mitov - Plovdiv

L 20750-66 EWA(h)/EWP(k)/EWT(1)/EWT(m)/T/EWP(v)/EWP(t) JD/HM

ACC NR: AP6010145 SOURCE CODE: UR/0125/66/000/003/0064/0066

AUTHOR: Krasulin, Yu. L. (Moscow); Nikitin, V. G. (Moscow); Kus'min, V. I. (Moscow)

ORG: none

25 48

TITLE: Welding of integrated circuits with indirect pulse heating

B

SOURCE: .vtomaticheskaya svarka, no. 3, 1966, 64-66

TOPIC TAGS: integrated circuit, circuit element, circuit microelement, microelement welding, circuit welding

10

ABSTRACT: A method for pressure welding the microelements of integrated circuits is suggested. In this method the microelements to be welded are heated to the required temperature indirectly by the punch (see Fig. 1) through which a short a-c or d-c pulse is passed. This power pulse brings the temperature in the contact point between the punch and element to be welded to 400—560C, at which only a small pressure is required to achieve a perfect bond. The method was successfully used for bonding aluminum, copper, and gold microwires 0.03—0.1 mm in diameter to aluminum, copper, or

16

Card 1/2 UDC: 621.791.89

L 20750-66

ACC NR: AP6010145

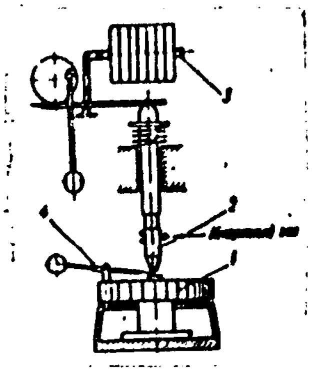


Fig. 1. Layout of the welding unit.

1 - Table; 2 - welding head with interchangeable punch; 3 - pressure producing mechanism; 4 - microwire feeding mechanism

gold films on sital substrates or gold films on silicon or kovar substrates, and to printed circuits on sital substrates. The weld strength was roughly equal to the strength of the microwire. Orig. art. has: 4 figures and 1 table. [DV]

SUB CODE: 09, 13 SUBM DATE: 14Aug65/ ORIG REF: 004/ OTH REF: 002/ ATD PRESS: 4225

Card 2/2

CHEKMAREV, A.P.; RABINOVICH, S.N.; Prinimali uchastiye: KUS'MIN, V.P.;
ZVONAREV, V.K.; DEMKO, V.M.

Investigating power conditions in the rolling of lightweight shaped sections on a 550mm. medium section mill. Izv. vys. ucheb. zav.; chern. met. 6 no.4:56-67 '63. (MIRA 16:[illegible])

1. Dnepropetrovskiy metallurgicheskiy institut.
(Rolling mills)

USSR / Farm Animals. Cattle. Q

Abs Jour	: Ref Zhur - Biologiya, No 2, 1959, No. 7307
Author	: Boldyreva, L. V.; Goryunova, V. K.; Kus'mina, L. N.
Inst	: Penza Institute of Agriculture
Title	: The Contents of Vitamin C in the Colostrum Depending upon Individual Properties of the Animals and the Number of Calvings
Orig Pub	: Sb. stud. nauchn. rabot. Penzensk. s.-kh. in-t, 1956, vyp. 1, 85-94
Abstract	: No abstract given

Card 1/1

23

Kus'minov, B. D.

SOV/89-5-3-15

AUTHORS: Leypunskiy, A. I., Abramov, A. I., Andreyev, V. N., [illegible], A. I., Bondarenko, I. I., Galkov, V. I., [illegible], V. I., [illegible], A. D., Guseynov, A. G., Kazachkovskiy, O. D., Kozlova, N. V., Krasnoyarov, N. V., Kus'minov, B. D., Morozov, V. N., Nikolayev, M. N., Smirenkin, G. N., Stavisskiy, Yu. Ya., Ukraintsev, F. I., Usachev, L. N., Fetisov, N. I., Sherman, L. Ye.

TITLE: Investigations of the Physics of Reactors With Fast Neutrons. II (Issledovaniya po fizike reaktorov na bystrykh neytronakh) (Continued from abstract 6/15)

PERIODICAL: Atomnaya energiya, 1958, Vol. 5, Nr 3, pp. 195-295 (USSR)

ABSTRACT: The reactivity and the kinetics of the reactor were measured. It could be shown that in the center of the active zone the weight of the 5 MeV neutrons is higher by ~1% than that of 250 MeV neutrons. The effective yield of the delayed neutrons in the reactor with a uranium shield exceeds that of a reactor with a copper shield by 1,4 times its amount.

Reactor [redacted] 5:

The active plutonium zone is the same as in reactor БР-1. In the center of the reactor a water-uranium channel is provided, which is separated from the plutonium zone by a uranium layer

Card 1/3

of 8 cm thickness. The uranium-water lattice consists of cylindrical slugs of normal uranium, which have a diameter of 35 mm. The canning material is aluminum. The ratio between water and uranium is 0,35. The lattice spacing is 40 mm. Measurements carried out with the water-uranium lattice instead of with the pure uranium layer showed:

1) The conversion factor is reduced from 2,45 ± 0,10 to 1,7 ± 0,2.

2) In the case of a fixed power output of the active zone the velocity with which the total quantity of plutonium 239 and uranium 235 is formed was increased by 35%.

3) The velocity with which plutonium is produced increases by 1,8 times its amount.

4) In the case of a fixed power output of the active zone the total power output of the reactor is increased by [illegible] times its amount.

Reactor [redacted]-2:

This reactor was described more in detail in references [illegible] and 15. Its nominal power output is 120 kW, the maximum output is 200 kW. In the active zone of the reactor БР-2, which consists of plutonium rods, mercury is used as a coolant, which takes up

Card 2/3

~1% of the total volume of the active zone. The regulating rods (interior of shield) are made from a copper-nickel alloy. The external shield consists of uranium slugs canned with stainless steel. Thickness ~25 cm. The uranium shield is surrounded by copper of 15 cm thickness.

The presence of mercury in the active zone leads to a decrease of the content of fast neutrons in the spectrum. The conversion factor was 1,6 ± 0,2.

Theoretically the kinetic equation for this reactor was calculated by G. I. Marchuk according to the method developed by V. S. Vladimirov. Theoretical calculation of the critical mass was carried out with an error of 6%, and that of the effective mass of the regulating rods with an error of 4%. The effective yield of the delayed neutrons was found to amount to [illegible], while the experimental value was 0,24 ± 0,04. There are [illegible] figures, 1 table, and 15 references, 9 of which are Soviet.

Card 3/3

L 4282-66 EWT(m)/EPF(c)/EWP(v)/EWP(j)/T WW/DJ/RM
ACCESSION NR: AP5024105 UR/0138/65/000/009/0013/0016
678.06:626.762.004.17

44,55 44,55 44,55 50 47 B

AUTHOR: Lyubchanskaya, L. I.; Tsapina, N. A.; Kus'minskiy, A. S.

TITLE: Study of relationship between chemical stress relaxation and decrease of the fatigue life of sealing substances 15,44,55

SOURCE: Kauchuk i rezina, no. 9, 1965, 13-16

TOPIC TAGS: vacuum seal, 17 11 hermetic seal, natural rubber, nitrile rubber, stress relaxation

ABSTRACT: The article deals with the loss of airtightness of a vacuum system as a result of contact leakage, which occurs when the contact stress falls below a certain critical value owing to aging of the sealing substance. A special apparatus was constructed in order to determine the relationship between the contact stress and the airtightness of a vacuum system, and to study the effect of various factors on the critical stress. Ring gaskets made of rubbers differing in polymer type, vulcanizing groups, filler type, and degree of filling were tested. Studies of gaskets based on natural, fluorinated (SKF-26), 15 butadiene-nitrile (SKN-26), 15 and silicone (SKTV-1) 15 rubber showed that loss of vacuum

Card 1/2

L 4282-66
ACCESSION NR: AP5024105

3

occurs at approximately the same contact stress, equal to 1 - 2 kg/cm^2, independent of the type of rubber, aging temperature, or degree of deformation. Orig. art. has: 5 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry) 44,55

SUBMITTED: 00 ENCL: 00 SUB CODE: MT,

NO REF SOV: 005 OTHER: 000

Card 2/2 DP

KUSMIRSKAYA, G.A., inzh.

Stressed state of an electrolytic chromium plating. Metalloved. i term. obr. met. no.12:40-43 D '62. (MIRA 16:1)

1. Odesskiy inzhenerno-stroitel'nyy institut.
(Chromium plating--Metallography)
(Thermal stresses)

Kusmorskaya, A.P.

PA 11140

Sep 1946

USSR/Marine Growths
Marine Biology

"Destruction of Plankton by Fishes Feeding on It, and the Importance of this Phenomenon for Estimating the Biomass," A.P. Kusmorskaya, 3 pp

"Comptes Rendus (Doklady)" Vol LIII, No 7

Mention is made of the marked reduction in the biomass of plankton in the Japan Sea. An analysis is given of the seasonal variation in the biomass of plankton with conditions in the sardine volume and movement. The Calanus tonsus, the most important food-organism of the sardine was investigated as the main factor in the study of the biomass.

21T40

KUSMORSKAYA, A. P.

PA 67T66

USSR/Medicine - Fish
Medicine - Plankton

May 1948

"The Influence of the Sardine on the Distribution of the Plankton Biomass in the Sea of Japan," A. P. Kusmorskaya, 4 pp

"Dok Ak Nauk SSSR, Nov Ser" Vol LX, No 6

Observations on the development of plankton in the northwestern part of the Japan Sea made it possible to determine yearly decrease in the biomass, and to connect this decrease with the entrance of sardines into Soviet coastal waters. These studies have been carried on over period of years, and began in 1941. Submitted by Academician P. P. Shirshov 16 Mar 1948.

[redacted]

67T66

KUSMORSKAYA, A. P.

"Spring Plankton of the Northwestern Part of the Japan Sea" Iz. Ak. Nauk SSSR. Ser, Biol. 3, 1949; All-Union Sci Research Inst. of Marine Fish Economy and Oceanography -1948-.

KUSMORSKAYA,A.P.

Seasonal and annual fluctuations of Black Sea zooplankton.
Trudy Gidrobiol.ob-va no.6:158-192 '55. (MLRA 8:9)

1. Laboratoriya gidrobiologii Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.
(Black Sea--Zooplankton)

KUSMORSKAYA, A.P.

Characteristics of the development of food supply of plankton-eating fishes in the northwestern part of the Black Sea in the summer of 1955. Vop.ikht. no.14:78-80 '60. (MIRA 13:8)

1. Laboratoriya kormovoy bazy i promyslovykh bespozvonochnykh Vsesoyuznogo nauchno-issledovatel'skogo instituta morskogo rybnogo khozyaystva i okeanografii.
(Black Sea--Plankton) (Fishes--Food)

KUSNER, B.A.

Speed up the complete mechanization of garment pressing. Shvein. prom. no.2:1-8 Mr-Ap '59. (MIRA 12:6)

1. Glavnyy konstruktor Konstruktorskogo byuro TSentral'nogo nauchno-issledovatel'skogo instituta shveynoy promyshlennosti.
(Pressing of garments)

KUSNER, B.A.; STARSHINOVA, S.K.

KMS1 and KMS2 conveying units for small output assembly lines. Shvein.prom. no.6:4-7 N-D '59. (MIRA 13:4)

1. TSentral'nyy nauchno-issledovatel'skiy institut shveynoy promyshlennosti.
(Conveying machinery) (Clothing industry--Equipment and supplies)

BELOV, V.F.; KUSNER, B.A. (Moskva)

RSh-3 machine for fabric stitching and simultaneous pressing of seams. Shvein.prom. no.6:8 N-D '59. (MIRA 13:4)
(Clothing industry--Equipment and supplies)
(Sewing machines)

SINYAKOV, A.B.; KUSNER, B.A. (Leningrad-Moskva)

Experimental introduction of recirculating conveyers with high productivity. Shvein.prom. no.3:32-36 My-Je '60. (MIRA 13:7)

(Assembly-line methods)
(Clothing industry—Equipment and supplies)

KUSNER, B.A.; PETROV, N.I. (Moskva)

Cutting of clothing parts from multiple layer fabric piles.
Shvein. prom. no.3:24-26 Je-Jl [i.e. My-Je] '61.
(MIRA 16:11)

MARAKUSHEV, Ye.A.; KUSNER, B.A.; SAFRONOVA, I.V.; TARASOVA, V.P.;
POPKOV, V.I., otv. red.; RUSAKOV, S.I., retsenzent;
PLEMYANNIKOV, M.N., red.; VINOGRADOVA, G.A., tekhn. red.

[Handbook for workers of the sewing industry] Spravochnik shveinika. Moskva, Gos.izd-vo "Rostekhizdat," Vol.2. 1962. 299 p.
(MIRA 15:3)

(Sewing)

KUSNER, B.A.; STENIKOV, N.L., kand. ekonom. nauk; STARSHINOVA, G.K., mladshiy nauchnyy sotrudnik.

Type TMS-1 and TMS-2 conveyors for small outputs with recirculation of intermediate products in boxes. Nauch.-issl. trudy TSNIIShveiproma no.11: 5-10 '62 (MIRA 17:7)

DUBROVSKIY, A.S.; KUSHER, B.A.; PETROV, N.I.; YANTOVSKAYA, I.A.,
red.

[Catalog and handbook on sewing equipment] Katalog - spravochnik po shveinomu oborudovaniiu. Moskva, Pt.2. 1963. 69 p. (MIRA 17:6)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii legkoy promyshlennosti.

ANISIMOV, S.I.; KUSNETSOV, N.M.; NOGOTOV, Ye.F.

Structure of shock waves in the air allowing for the kinetics of chemical reactions and the excitation of molecular vibrations of nitrogen. Teplofiz. vys. temp. 2 no.3:337-343 My-Je '64. (MIRA 17:8)

1. Institut khimicheskoy fiziki Akademii nauk SSSR i Institut fiziki AN BSSR.

KUSNIERCZYK, Waclaw

Temporary disability in otorhinolaryngology. Otolar. polska 10 no.3-4:477-484 1956.

1. Z Kliniki Otolaryngologicznej S.A.M. w Zabrzu Kierownik: prof. T. Ceypek. Zabrze, Curie-Sklodowskiej 10.
(OTORHINOLARYNGOLOGY,
otorhinolaryngol. dis. with temporary working disability (Pol))

KUSNIERCZYK, Waclaw (Zabrze, ul. Wolnosci 279/7)

Case of non-purulent otogenous acute encephalitis. Otolar. polska 11 no.1:89-91 1957.

1. Z Kliniki Otolaryngologicznej Sl. A. M. w Zabrzu kierownik: prof. dr T. Ceypek i ze Szpitala Miejskiego w Nowym Saczu Dyrektor: dr Z. Zurek.

(OTITIS, MEDIA, compl.
encephalitis, acute non-purulent in bilateral
otitis media, case report (Pol))
(ENCEPHALITIS, etiol. & pathogen.
otitis media, bilateral (Pol))

KUSNIERCZYK, Waclaw

Adenomas of the bronchi. Otolar. polska 11 no.3:263-270 1957.

1. Z Kliniki Otolaryngologicznej S. A. M. Kierownik: prof. T. Ceypek.
(BRONCHI, neoplasms
adenoma, from pulm. tuberc. (Pol))
(TUBERCULOSIS, PULMONARY, differ. diag.
bronchial adenoma (Pol))

KUSNIERCZYK, Waclaw; KWIATKOWSKA, Anna

Osteomyelitis of the maxilla in young children. Otolar. polska 12 no.2:193-199 1958.

1. Z Kliniki Otolaryngologicznej Sl. Ak. Med. w Zabrzu Kierownik: prof. dr T. Ceypek. Zabrze, Wolnosci 279/7 (for Kusnierczyk). Zabrze, Wolnosci 260 (for Kwiatkowska).

(OSTEOMYELITIS, in inf. & child
 maxilla, antibiotic ther. & surg. (Pol))
(MAXILLA, dis.
 osteomyelitis in inf. & child., antibiotic ther. & surg. (Pol))
(ANTIBIOTICS, ther. use
 osteomyelitis of maxilla in inf. & child., with surg. (Pol))

BETOWSKI,Andrzej; KUSNIERCZYK,Waclaw

A case of early cerebrospinal meningitis as a complication of acute otitis media. Otolar polska 14 no.1:141-143 '60.

1. Z Kliniki Otolaryngologicznej Sl. A.M. w Zabrzu, Kierownik: prof. dr. T. Ceypek.
(MENINGITIS etiol.)
(OTITIS MEDIA compl.)

KUSNIERCZYK, Waclaw; SWIATNICKA, Jolanta

Complications of esophagoscopy. Otolar. polska 15 no.4:439-445 '61.

1. Z Kliniki Otolaryngologicznej Sl. AM w Zabrzu Kierownik: prof. dr med. T.Ceypek. (ESOPHAGOSCOPY compl)

KUSNIERCZYK, Waclaw; WIECZORKIEWICZ, Anna; VORBRODT, Janina

Attempted prevention of excessive ractions to radiation in the treatment of laryngal cancer with roentgen rays. Nowotwory 13 no.4:341-346 O-D'63.

1. Z Kliniki ORL Sl. AM w Zabrzu (kierownik: prof. dr.med. T.Ceypek) i Instytutu Onkologii w Gliwicach (dyrektor: dr. med. J.Swiecki).

KUSNIERCZYK, Waclaw; SOSNIERZOWA, Krystyna; PIASTOWSKA, Elwira;
DOBROWOLSKI, Andrzej.

Effect of tonsillectomy and adenotomy on the course of bronchial asthma in children. Otoralyng. pol. 17 no.4:449-450 '63.

1. Z Oddzialu Otolaryngologicznego Panstwowego Szpitala Klinicznego Nr.4 w Katowicach.

KUSMIERCZYK, Waclaw; GARWACKI, Janusz; RUTKOWSKI, Boleslaw.

Oximetric control during bronchoscopy performed under anesthesia with the addition of muscle relaxant drugs. Pol. tyg. lek. 19 no.43:1638-1641 26 O '64

1. Z Kliniki Laryngologicznej (Kierownik: prof. dr. Tadeusz Cypek); I Kliniki Chirurgicznej Slaskiej Akademii Medycznej w Zabrzu (Kierownik: prof. dr. Stanislaw Szyszko) i z Instytutu Onkologii w Gliwicach (dyrektor: dr. Jaremi Swiecki).

KUSNIERCZYK, Waclaw; BETKOWSKI, Andrzej; KWIATKOWSKA, Anna;
LEPKOWSKA, Halina; SWIATNICKA, Jolanta

Late postradiation injury of the larynx in relation to the intensity of local reaction during x-ray treatment of the cancer of larynx and lower pharynx. Nowotwory 15 no.2:173-179 Ap-Je '65.

1. Z Kliniki ORL Slaskiej AM w Zabrzu (Kierownik: prof. dr. med. T. Ceypek) i z Instytutu Onkologii w Gliwicach (Dyrektor: dr. med. J. Swiecki).

KUSNIERKIEWICZ, J.

Measuring instruments produced by the Electronic Measuring Instrument Plant T-14.
p. 267
(TELE-RADIO. Vol. 2, no. 6, June 1957, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

L 3907-66

ACC NR: AP6018288 SOURCE CODE: PO/0053/65/000/011/0525/0527

AUTHOR: Figielski, Tadeusz; Kusnierz, Ryszard

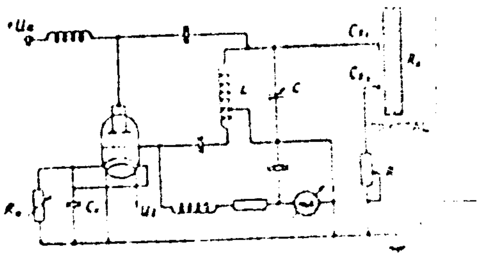
ORG: Institute of Physics, PAN, Warsaw (Instytut Fizyki PAN)

TITLE: A device for measuring the resistivity of semiconductor materials without direct contact

SOURCE: Przeglad elektroniki, no. 11, 1965, 525-527

TOPIC TAGS: resistivity, semiconducting material, coupling circuit, electronic measurement, polycrystal, semiconductor crystal, HF OSCILLATOR

ABSTRACT: The authors describe a noncontact method for determining the resistivity of semiconductors by capacitive coupling of the crystal to the tank circuit of a high-frequency oscillator. The circuit of the measurement oscillator is shown in the figure. The crystal is connected in parallel to the capacitor C in the oscillator tank circuit through coupling capacitors C_{S1} and C_{S2}. The electrodes are two metal plates or tapes clamped to the crystal surface through a layer of



Card 1/3

ACC NR: AP6018288

dielectric foil. The coupling capacitance is set up between the electrodes and the crystal. The circuit is a modified Meissner oscillator operating at high grid currents. The measurements frequency is about 4.5 Mc. The grid current is measured by a milliammeter connected in series with an hf choke. The grid current I_s measured as a function of frequency (or capacitance of C) has a number of extrema. The oscillator frequency is selected to operate on one of the extremum values of I_s. Curves are given showing I_s as a function of the interelectrode resistance of the crystal R_x for various effective coupling capacitances. These curves show a characteristic minimum which increases with coupling capacitance. The region of considerable change in I_s extends over values of R_x ranging from 10 Ω to 100 KΩ when the coupling capacitance is of the order of several dozen μμf. This range may be used for determining the unknown value of R_x from measurements of the grid current. A variable resistor R=0-5 KΩ is connected in series with the coupling capacitance and the resistance of the crystal. This resistance may be adjusted to give the minimum grid current when the resistance R_x is too low. The cathode potentiometer is adjusted for zero setting. The electrodes are made in the form of rollers from sheets of brass foil measuring about 20×8 mm. Resistivities from about 10 Ω·cm to 10 KΩ·cm may be measured and this range may be extended to 100 KΩ·cm by changing the oscillator frequency. The accuracy of the measurement

Card 2/3

L 300

ACC NR: AP6018268

varies from 10 to 20% depending on the resistance. The instrument may also be used for measuring the average resistivity of polycrystalline materials. Orig. art. has: 4 figures.

SUB CODE: 09/ SUBM DATE: none

Card 3/3

KUSNIERZ, Ryszard

POLAND

FIGIELSKI, Tadeusz; KUSNIERZ, Ryszard

Institute of Physics, Polish Academy of Sciences (Instytut Fizyki PAN), Warsaw (for both)

Warsaw, Przeglad elektroniki, No 11, November 1965, pp 525-527

"Device for the contactless measurement of the resistivity of semiconductor materials."

KUSNIKOVA, V. G., Ass., State Non-Ferrous Metals Research Institute, Moscow, and
MITROFANOV, S. I., Prof., State Non-Ferrous Metals Research
Institute, Moscow

"Adsorption of Diethyldithiophosphate and Butyl Xanthate by Sulphides," a paper presented at the International Congress on Mineral Dressing, Stockholm, 18-21 Sep 57.

C-3,800,349

Kusnitsina, Z.I.

2

1-4

Structural peculiarities of steel in the state of reversible temper brittleness. I. Microscopic study. S. F. Yur'ev and Z. I. Kuznitsina. Fiz. Metal. i Metalloved. Akad. Nauk S.S.S.R. 3, 283-91 (1956).--Specimens of [illegible] C steels with Mn 1.26, Cr 1.50; Cr 2.25, Ni 3.5 [illegible] Ni 3.5, Mo 0.31% were quenched and [illegible] temper brittleness, and attempts were made [illegible] the state of brittleness metallographically. [illegible] sults were obtained by repolishing and reetching [illegible] aq. soln. of picric acid at 40-50° [illegible] steels, the treatment developed the [illegible] grains, failing to do so in ductile materials. A [illegible] of an intergranular fracture of brittle steels was secured by metallographically polishing the side of an impact test specimen in the area of its notch, etching, and [illegible] sponding to them are given and analyze

facet extension always correspond to the boundaries of austenitic grains developed by picric acid etching. Until temper brittleness is developed, facets of fractures are formed only by portion of originally austenitic grains and then by full grains.

L. D. Gat

YUR'YEV, S.F.; KUSNITSINA, Z.I.

Metallographic characteristics of structural steel in the state of reversible temper brittleness. Part 2. Fracture-surface metallography. Fiz. met. i metalloved. 3 no.2: 292-298 '56. (MLRA 9:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut Ministerstva sudostroitel'noy promyshlennosti.
(Steel, Structural--Metallography)
(Tempering)

AUTHORS: Yur'yev, S. F. and Kusnitsina, Z. I. SOV/126-6-1-21/33

TITLE: On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in **Vacuum** (Ob izbiratel'nom isparenii nekotorykh metallov s poverkhnosti stali pri nagreve v vakuume)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1958, Vol 6, Nr 1 pp 157-166 (USSR)

ABSTRACT: The authors carried out experiments for the purpose of evaluating the selective evaporation of Cr, Mn, Fe, Ni and, particularly, Mo from the surface of cuts of two grades of steel (Table 2, p 158; in this table the percentages are given but obviously due to a printing error the elements to which the percentages refer are omitted) heated to 1200°C in a vacuum of 10^{-4} mm Hg; one of the steels was alloyed with more volatile admixtures (Mn, Cr), the other was alloyed, in addition to volatile Cr, with Ni and Mo which are less inclined to evaporate. The heating in vacuum was effected on a test rig for high temperature microscopic investigations of the structure and was accompanied by subsequent local spectrum analytical analysis of the state of the surface

Card 1/6

SOV/126-6-1-21/33

On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in Vacuum

subjected to heating at a given temperature during a given time; thereby the spark was localised to an area not exceeding 0.06 mm dia. and a depth of 2µ (the local spectrum analysis of the specimen surface was effected by Engineer G. G. Afanas'yeva). The specimen was heated non-uniformly along the length so that the maximum temperature was reached in the middle where the hot joint of the thermocouple was welded on. The points analysed by spectrum analysis were spaced at 2.5 mm beginning from the middle of the specimen. The spectral determination was repeated three times at points of equal distance from the centre of the specimen and, according to calibration temperature curves, the temperature was determined which was maintained in the specimen at the level of each of the analysed points. This enabled determining the dependence of the residual concentration of the analysed elements as a function of the heating temperature for a given heating duration. On the basis of the results, which are described, graphed and discussed, the following conclusions are arrived at: 1) heating in vacuum of multi-

Card 2/6

SOV/126-6-1-21/33

On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in Vacuum

component metallic alloys, and particularly of alloy steel, is accompanied by selective evaporation of metals, as a result of which the initial composition of the surface layer of the metal changes appreciably.

2) Of the five elements under consideration (Mn Cr, Fe Ni, Mo) Mn has the highest inclination to evaporate, in the temperature range 700-1200°C at a vacuum of 10^{-4} mm Hg the tendency to evaporate is lower for chromium and lower still for Fe; nickel, and particularly Mo, almost do not evaporate at all under the given conditions.

3. The relative intensity of participation of the components in the evaporation of a multi-component system in vacuum at high temperatures is particularly in agreement with the relative values of the vapour tension of the pure components under the conditions of experiment.

4. The intensity of evaporation of the volatile components from the steel depends (in addition to temperature, the pressure above the evaporation surface and the vapour tension of the components) on the initial concentra-

Card 3/6 tion of the elements in the alloy, increasing with

SOV/126-6-1-21/33

On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in Vacuum

increasing concentration of the respective component.

5. The change in the composition of the surface layer of alloy steel as a result of evaporation is accompanied by appreciable changes in its properties, particularly by intensive changes in the resistance to corrosion; the effect of these changes is determined by the volatility of the alloying elements and their influence on the respective properties of the steel.

6. Data on the change of the composition of the surface of the steel during the process of evaporation enabled establishing the composition of the vapour which separates out from the steel surface, provided that the system contains at least one element which does not participate in the evaporation or an element for which the degree of evaporation is known.

7. Application of numerous vacuum instruments for investigating the structure and the properties of metals at elevated temperatures is inadmissible without taking into consideration the variability of the composition of the surface of the metal during the tests. In the case

Card 4/6

SOV/126-6-1-21/33

On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in Vacuum

of multi-component systems, application of such instruments should be strictly limited as regards the permissible temperatures and for short durations so as to ensure relative constancy of the composition and the properties of the metallic surface. In absence of such limitations, utilisation of results of anisometric, dilatometric, durometric, magnetic and electric measurements, and particularly of micro-structural observations, at elevated temperatures under high vacuum involves greater or lesser errors due to the fact that the results of the measurements will no longer apply to an alloy of the initial composition.

Card 5/6

SOV/126-6-1-21/33

On the Selective Evaporation of Certain Metals from a Steel Surface During Heating in Vacuum

There are 6 figures, 2 tables and 19 references, 18 of which are Soviet, 1 English.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut sudostroitel'noy promyshlennosti (Central Scientific Research Institute of the Ship-Building Industry)

SUBMITTED: March 6, 1956 (Initially)
November 19, 1956 (after revision)

Card 6/6

1. Steel alloys--Temperature factors 2. Steel alloys--Microstructure 3. Metals--Spectrographic analysis 4. Steel alloys--Properties

KUSNITSYN, G.I.

Study of the air-distributing apparatus of pneumatic percussion machines. Izv. vost. fil. AN SSSR no.10:81-93 '57. (MLRA 10:11)

1. Zapadno-Sibirskiy filial AN SSSR i Gosudarstvennyy zavod pnevmaticheskikh mashin "Pnevmatika.".

(Pneumatic machinery)

ALEKSANDROV, B.F., inzh.; BALYKOV, V.M., inzh.; BARANOVSKIY, P.I., inzh.; BOGUTSKIY, N.V., inzh.; BUN'KO, V.A., kand.tekhn.nauk, dotsent; VAVILOV, V.V., inzh.; VOLOTKOVSKIY, S.A., prof., doktor tekhn.nauk; GRIGOR'YEV, L.Ya., inzh.; GRIDIN, A.D., inzh.; ZARMAN, L.N., inzh.; KOVALEV, P.F., kand.tekhn.nauk; KUZNETSOV, B.A., kand.tekhn.nauk, dotsent; KUSNITSYN, G.I., inzh.; LATYSHEV, A.F., inzh.; LEYBOV, R.M., doktor tekhn.nauk, prof.; LEYTES, Z.M., inzh.; LISITSYN, A.A., inzh.; LOKHANIN, K.A., inzh.; LYUBIMOV, B.N., inzh.; MASHKEVICH, K.S., inzh.; MALKHAS'YAN, R.V.; MILOSERDIN, M.M., inzh.; MITNIK, V.B., kand.tekhn.nauk; MIKHEYEV, Yu.A., inzh.; PARAMONOV, V.I., inzh.; ROMANOVSKIY, Yu.G., inzh.; RUBINOVICH, Ye.Ye., inzh.; SAMOYLYUK, N.D., kand.tekhn.nauk; SMEKHOV, V.K., inzh.; SMOLDYREV, A.Ye., kand.tekhn.nauk; SNAGIN, V.T., inzh.; SNAGOVSKIY, Ye.S., kand.tekhn.nauk; FEYGIN, L.M., inzh.; FRENKEL', B.B., inzh.; FURMAN, A.A., inzh.; KHORIN, V.N., dotsent, kand.tekhn.nauk; CHETVEROV, B.M., inzh.; CHUGUNIKHIN, S.I., inzh.; SHELKOVNIKOV, V.N., inzh.; SHIRYAYEV, B.M., inzh.; SHISHKIN, N.F., kand.tekhn.nauk; SHPIL'BERG, I.L., inzh.; SHORIN, V.G., dotsent, kand.tekhn.nauk; SHTOKMAN, I.G., doktor tekhn.nauk; SHURIS, N.A., inzh.; TERPIGOREV, A.M., glavnyy red.; TOPCHIYEV, A.V., otv.red.toma; LIVSHITS, I.I., zamestitel' otv.red.; ABRAMOV, V.I., red.; LADYGIN, A.M., red.; MOROZOV, R.N., red.; OZERNOY, M.I., red.; SPIVAKOVSKIY, A.O., red.; FAYBISOVICH, I.L., red.; ARKHANGEL'SKIY, A.S., inzh., red.;

(Continued on next card)

ALEKSANDROV, B.F.---(continued) Card 2.

BELYAYEV, V.S., inzh., red.; BUKHANOVA, L.I., inzh., red.; VLASOV, V.M., inzh., red.; GLADILIN, L.V., prof., doktor tekhn.nauk, red.; GREBTSOV, N.V., inzh., red.; GRECHISHKIN, F.G., inzh., red.; GONCHAREVICH, I.F., kand.tekhn.nauk, red.; GUDALOV, V.P., kand.tekhn.nauk, red.; IGNATOV, N.N., inzh., red.; LOMAKIN, S.M., dotsent, kand.tekhn.nauk, red.; MARTYNOV, M.V., dotsent, kand.tekhn.nauk, red.; POVOLOTSKIY, I.A., inzh., red.; SVETLICHNYY, P.L., inzh., red.; SAL'TSEVICH, L.A., kand.tekhn.nauk, red.; SPERANTOV, A.V., kand.tekhn.nauk, red.; SHETLER, G.A., inzh., red.; ABARBARCHUK, F.I., red.izd-va; PROZOROVSKAYA, V.L., tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Mining; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Glav.red.A.M.Terpigorev. Chleny glav.redaktsii A.I. Baranov i dr. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu. Vol.7. [Mining machinery] Gornye mashiny. Redkol.toma A.V.Topchiev i dr. 1959. 638 p. (Mining machinery) (MIRA 13:1)

KUSNITSYN, G. I., Candidate Tech Sci (diss) -- "Investigation of the air-supply systems of pneumatic shock machines". Leningrad, 1959. 20 pp (Min Higher Educ USSR, Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst im G. V. Plekhanov), 100 copies (KL, No 25, 1959, 134)

KUSNITSYN, G.I.

Efficient types of air-regulating devices for air-feed drills.
Vzryv. delo no.46/3:252-262 '61. (MIRA 15:1)
(Boring machinery--Attachments)
(Automatic control)

BEZHANOV, B.N. Prinimal uchastiye BEZHANOV, B.B., inzh.; KOL'TSOV, N.I., kand. tekhn.nauk, retsenzent; KUSNITSYN, G.I., kand. tekhn. nauk, red.; CHFAS, M.A., red. izd-va; BARDINA, A.A., tekhn. red.

[Pneumatic systems in the automation of technological processes] Pnevmaticheskie sistemy avtomatizatsii tekhnologicheskikh protsessov. Moskva, Mashgiz, 1963. 287 p. (MIRA 16:7)

(Pneumatic control)

83821

15.8105 also 2209
11.2217

S/190/60/002/005/011/015
B004/B067

AUTHORS: Uskov, I. A., Kusnitsyna, T. A.

TITLE: Filled Polymers. II. The Effect of Dispersing Aminated Bentonite in a Monomer Medium on the Reinforcement of Polymethylmethacrylate

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 5, pp. 728-730

TEXT: The authors wanted to obtain a filled polymethylmethacrylate with better properties than had those obtained in a previous work (Ref. 1), by maximum dispersion of bentonite into primary particles. Octadecylammonium bentonite, whose production was described in Ref. 1, was mixed with methylmethacrylate containing 0.1% benzoyl peroxide, in a ratio of 1 : 4. The mixture was crushed in a vibration mill at 47 c/sec for 80 minutes, then cooled with solid carbonic acid, and polymerized in sealed ampoules at 80°C for eight hours. The monomer which did not enter into reaction was extracted by means of benzene, the polymer was washed with methanol, dried, and pressed into tablets. With these tablets the thermomechanical curves were taken (Fig.) on a dynamometric balance by V. A.

Card 1/2

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Filled Polymers. II. The Effect of Dispersing Aminated Bentonite in a Monomer Medium on the Reinforcement of Polymethylmethacrylate

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Kargin (Ref. 2). As compared with the product described in Ref. 1, the new product shows the following properties: flow limit above $255^{\circ}C$, i.e., by at least $60^{\circ}C$ higher than that of pure polymethylmethacrylate, and by at least $40^{\circ}C$ higher than that of the product of Ref. 1. Its strength was 47% higher than that of pure polymethylmethacrylate (Ref. 1 only 19%). The crushing did not influence the molecular weight which amounted to 360,000. Special experiments showed that on dispersion no grafting effect as described by V. A. Kargin and N. A. Plate (Ref. 3) occurred. The authors thank V. A. Kargin for a discussion. There are 1 figure and 6 references: 4 Soviet and 2 US.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: January 25, 1960

Card 2/2

USKOV, I.A. [Uskov, I.O.]; SOLOMKO, V.P.; KUSNITSYNA, T.A. [Kusnitsyna, T.O.];
PELISHENKO, S.S.

Reinforcement of capron fiber by means of modified bentonite.
Dop. AN URSR no.6:798-801'63 (MIRA 17:7)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno akademikom AN UkrSSR F.D. Ovcharenko.

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AUTHORS: Uskov, I. A., Tarasenko, Yu. G., Kusnitsyna, T. A.

TITLE: Filled polymers. IV. Combination of dissolved polymethyl methacrylate with fillers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 1, 1961, 37-40

TEXT: In previous publications (Refs. 1,2) the authors were able to show that grinding has no influence on the addition mechanism of the polymer to the filler during the polymerization of methyl methacrylate in presence of organophilic fillers, carried out in a vibrating mill to attain homogeneous distribution. Assuming the reinforcing effect of active fillers to be attainable also by combining the latter with the ready-made polymer in an appropriate manner, the authors studied the possibility of homogeneous combination of the two components in solution. Polymethyl methacrylate (PMM) was used as polymeric component. Chalk (inert), octadecylammonium bentonite prepared according to Ref. 2 and methyl-methacrylate treated sodium bentonite which had adsorbed up to 20%

Card 1/3

88725

Filled polymers. IV. Combination of...

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B119/B216

of methyl methacrylate, respectively, were used as fillers. Suspensions of the respective filler in benzene were added to benzene solutions of the polymer, mixed, and the mixture precipitated with methanol. In all cases, the powdery filled polymer obtained was completely homogeneous. The polymer properties were tested by differential thermal analysis, hardness determinations and tests of deformation under heat. Differential thermal analysis showed the filled polymer to possess higher heat stability than the unfilled polymer (octadecylammonium-bentonite filled polymer decomposes at 400°C, unfilled polymer at 380°C and polymer containing filler with organic surface at 285°C). This proves the occurrence of interaction between the components. The hardness of the polymer filled with active filler is greater than that of the unfilled polymer (in the vitreous state) i.e. 24.3 kg/mm^2 for unfilled polymer; 26.9 kg/mm^2 in the case of 20% octadecylammonium-bentonite filled polymer and 28.5 kg/mm^2 for polymer filled with bentonite containing 10% adsorbed methyl methacrylate. 10% chalk as inactive filler reduces the hardness to 23.5 kg/mm. The thermomechanical curves were taken in accordance with the method by V. A. Kargin and T. I. Sogolova (Ref. 9). The vitrification

Card 2/3

88725

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Filled polymers. IV. Combination of... B119/B216

temperature of polymethyl methacrylate filled with active filler is increased insignificantly as compared to unfilled polymer, whereas the flow temperature is raised by about 50°C (230°C for unfilled, 280°C and 270°C, respectively, for actively filled and 205°C for chalk-filled polymer). The publication by P. A. Rebinder and collaborators (Ref. 8) is mentioned. There are 2 figures and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc.

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ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: May 26, 1960

Card 3/3